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ABSTRACT

This report covers the changes in the employment and unemployment of artists from 1971 to 1980, as reported in the Current Population Survey (CPS). The term artist includes people in the following occupations: actors, architects, authors, dancers, designers, musicians and composers, painters and sculptors, photographers, radio and television announcers, and teachers of art, drama, and music in higher education. As of 1980 there were over a million persons in the artistic labor force. From 1971 to 1980 that specific labor force grew by 323,000 or 46%. Authors increased their numbers at the highest rate, while radio and television announcers were the only artists whose numbers declined. Painters/sculptors and designers were the largest artist occupation group. One-third of the artist labor force was female. Dancers and painters/sculptors were the only two occupations which had a majority of females. Although unemployment rates for artists were generally lower at the end of the decade than at the beginning, unemployment among artists was higher than among all other professional and technical workers. The most chronic artist unemployment existed among actors, with rates during the decade ranging between 31% and 48%. As many as 10,000 actors were out of work, which was about nine times greater than the average for other artists' occupations. Over 20 tables and figures illustrate the findings. Appendices include detailed tables as well as notes on the reliability of the CPS statistics and on the CPS as a source of artist occupation data. (APG)

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Report #16

Artist Employment and Unemployment 1971-1980

National Endowment for the Arts

Research Division

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Artist Employment and Unemployment 1971-1980

National Endowment for the Arts, Washington, D.C.

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PREFACE

This report examines employment and unemployment in ten artist occupations during the decade of the 1970s as reported in the Current Population Survey. The Current Population Survey (CPS) is a nationwide monthly sample of approximately 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. Based on the responses to this survey, employment in over 400 detailed occupations, including a number of artist occupations, is reported annually. Since the entire sample is asked to respond to the same set of occupational questions, the CPS provides estimates of employment in artist occupations which are directly comparable to those for all other occupations.

It must be noted that because the artist population makes up a small portion of the U.S. population only a small number of artists are included in the CPS sample. This limits the statistical reliability, of course. The national census conducted once every ten years includes a much greater number of artists and therefore the statistical reliability is much better for the census years. Analysis of change in the artist labor force and employment based on the 1970 and 1980 census is planned by the Research Division when the 1980 census data become available (approximately 1983). Meanwhile, the CPS figures tell a great deal about artists in the U.S. labor force if they are examined with an understanding of their limitations.

Research Division Report #1, Employment and Unemployment of Artists: 1970-1975 also included CPS estimates of artist employment and unemployment; and, beginning in February 1976, the Division presented annual artist employment figures based on the CPS to the National Council on the Arts. Both Report #1 and the annual employment figures were accompanied by "standard error" estimates to indicate data reliability and the same information appears in Appendix B of this report. Wherever possible the CPS data have been compared with relevant data from other sources to confirm or help explain the tendencies that they show.

Several persons provided technical assistance in the preparation of this report. Among them are Diane Ellis, a consultant to the Research Division, and Robert Bednarzik and John Stinson of the Bureau of Labor Statistics.

Research Division
National Endowment for the Arts
January 1982

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INTRODUCTION

Changes in the employment and unemployment of artists from 1971 to 1980 is the topic of this report. Like people in other occupations, artists depend on the overall health of the national economy in maintaining gainful employment. In times of recession, unemployment in many types of artist occupations increases. The 1973-75 recession caused a downturn in artist employment, but when the decade of the 1970s ended employment levels were relatively high in most artist occupations.

The term artist as used in this report includes people in the following occupational categories as listed in the U.S. Bureau of the Census, 1970 Census of Population Classified Index of Industries and Occupations:

Actors
Architects
Authors
Dancers
Designers
Musicians and composers
Painters and sculptors
Photographers
Radio and television announcers
Teachers of art, drama, and music in higher education
Other artists not elsewhere classified

This differs from the broader Bureau of the Census classification of "writers, artists, and entertainers" used in Research Report #1, Employment and Unemployment of Artists, 1970-1975. The latter classification included such occupations as athletes, reporters, editors, and publicity writers, all of which are excluded from consideration in this report.

The labor force of artists comprises those people at least sixteen years old who were employed in any of the above artist occupations and those persons previously employed in artist occupations and currently seeking work.

Employed artists are those who worked for pay any time during the monthly survey week, including the self-employed. A person working at more than one job is counted as an artist only if the artistic work is the job at which he or she worked the greatest number of hours.

Unemployed artists are those who did not work during the survey week but were available for work and had looked for work within the preceding four weeks.

The unemployment rate is the number of artists unemployed as a percent of the artist labor force. These data do not include such people with artists' skills who are not in the labor force as retired persons, those not working while in school, those working without pay, and those not seeking work because of personal or job market factors. Unemployment rates for dancers could not be reliably calculated from CPS data because of the small number of persons in this occupation in the sample and are omitted from this report.

1971-80 HIGHLIGHTS

- There are now over a million persons in the artist labor force. Figures for 1980 show that 1,020,000 people identified themselves as employed or unemployed actors; architects; authors; dancers; designers; musicians/composers; painters/sculptors; photographers; radio-TV announcers; teachers of art, drama, and music in higher education; and other artists not elsewhere classified.

- The artist labor force grew steadily from 1971 to 1980 and increased by 323,000 persons or 46%. This is a higher rate of increase than the rate for all professional and technical workers, which was 40% in the same period.

- Authors increased their numbers at a higher rate than any other artist occupation. They grew from 33,000 to about 71,000. This is an increase of 115%. Radio-TV announcers were the only artists whose number declined.

- Painters/sculptors and designers are now the largest artist occupation groups, with nearly 200,000 members each. Although musicians/composers was the second largest artist group in 1971, this occupation dropped to third place by 1980, with 153,000 members reflecting a comparatively modest growth over the decade of 21%.

- The artist labor force is now about one-third female and two-thirds male as a result of women entering artist occupations at twice the rate of men during the decade of the 1970s. There are now two artist occupations which have a majority of females: dancers and painters/sculptors. In 1971, this was only the case for dancers.

- Unemployment rates for artists were generally lower at the end of the decade than at the beginning. Unemployment was greatest during the year 1975.

- Unemployment rates were higher among artists than among all professional and technical workers—the broad labor force group with training levels most comparable to artists. In 1980, artists averaged 4.1% unemployment compared with 2.5% for all professional and technical workers.

- The most chronic artist unemployment existed among actors, with rates during the decade ranging between 31% and 48%. As many as 10,000 actors were out of work in 1979. Their unemployment rate is about nine times greater than the average for the other artist occupations.

Table 1 **Labor force levels in artist occupations by sex 1971 and 1980**

Occupation	Labor force		Percentage change 1971-80
	1971	1980	
All professional and technical workers	11,416,000	16,008,000	+ 40%
Male	6,933,000	8,869,000	+ 28%
Female	4,483,000	7,137,000	+ 59%
Actors	19,000	23,000	+ 21%
Male	11,000	14,000	+ 27%
Female	8,000	9,000	*
Architects	70,000	92,000	+ 31%
Male	67,000	86,000	+ 28%
Female	3,000	6,000	*
Authors	33,000	71,000	+115%
Male	21,000	41,000	+ 95%
Female	12,000	31,000	+158%
Dancers	10,000	12,000	+ 20%
Male	1,000	2,000	*
Female	9,000	10,000	*
Designers	106,000	198,000	+ 87%
Male	78,000	139,000	+ 78%
Female	28,000	60,000	+114%
Musicians/composers	126,000	153,000	+ 21%
Male	82,000	108,000	+ 32%
Female	45,000	44,000	- 2%
Painters/sculptors	130,000	199,000	+ 53%
Male	82,000	97,000	+ 18%
Female	48,000	101,000	+110%
Photographers	81,000	114,000	+ 41%
Male	67,000	90,000	+ 34%
Female	13,000	24,000	+ 85%
Radio-TV announcers	28,000	19,000	- 32%
Male	27,000	14,000	- 48%
Female	1,000	5,000	*
Teachers (higher ed.)**	29,000	37,000	+ 28%
Male	20,000	19,000	- 5%
Female	9,000	18,000	+100%
Other artists	65,000	102,000	+ 57%
Male	48,000	68,000	+ 42%
Female	16,000	34,000	+113%
All artists	697,000	1,020,000	+ 46%
Male	504,000	678,000	+ 35%
Female	192,000	342,000	+ 78%

Note: Male plus female labor force may not equal occupation total due to rounding.

* Category has labor force under 10,000; data base is too small for estimate.

** Art, drama, and music.

GROWTH OF THE ARTIST LABOR FORCE

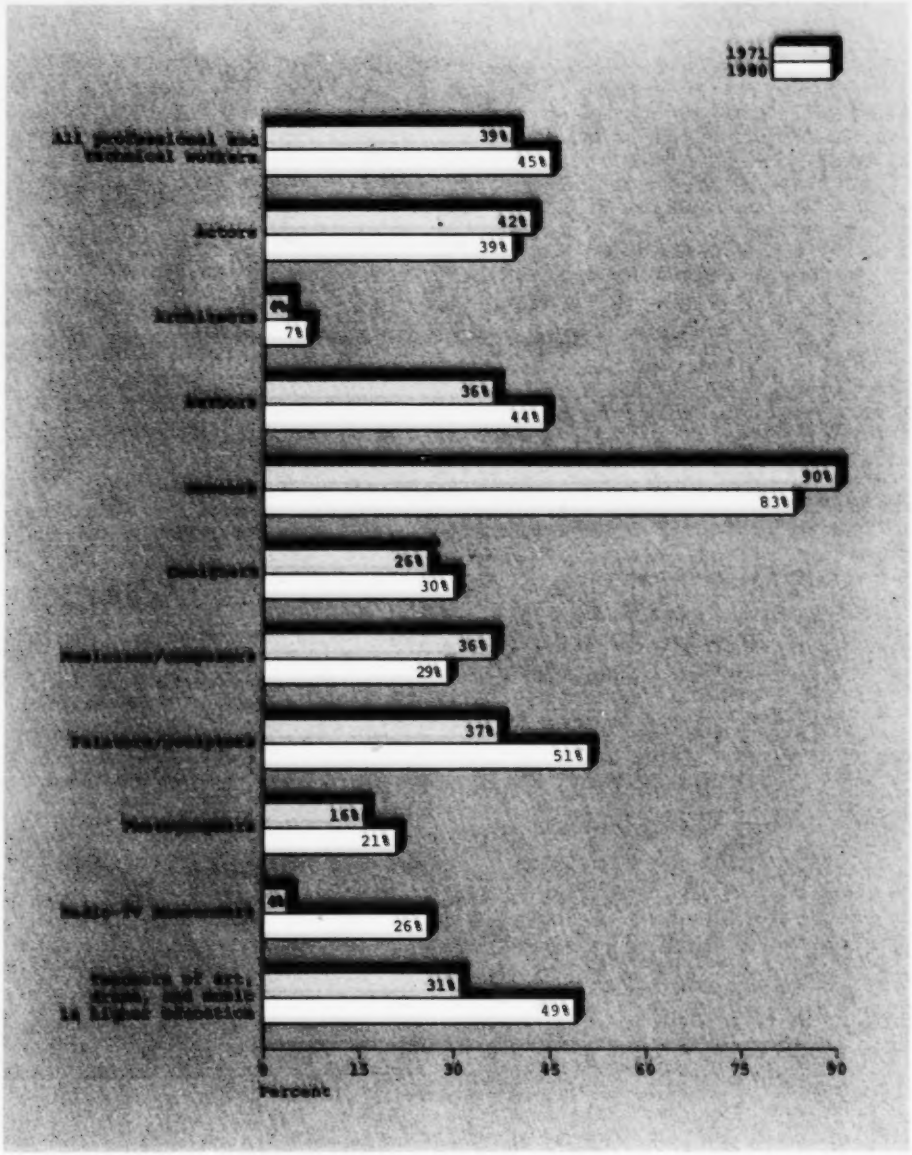
During the 1970s decade the artist labor force in the United States increased by about 323,000 persons. In 1971 there were 697,000 persons in the occupations of actors; architects; authors; dancers; designers; musicians/composers; painters/sculptors; photographers; radio-TV announcers; teachers of arts, drama, and music in higher education; and other artist occupations not elsewhere classified. By 1980, this number increased to about 1,020,000. This is a 46% increase between 1971 and 1980. The growth of the labor force for all professional and technical workers was 40% in the same period.

The number of authors led the 1970s artist labor force increase in percentage terms; it more than doubled, rising from 33,000 in 1971 to 71,000 in 1980. Other artist occupations which increased more than the average were designers and painters/sculptors, which grew by 92,000 and 69,000 respectively. By 1980, they were also the two largest artist occupations, with about 200,000 workers each.

The radio-TV announcer occupation was the only one to decrease in overall labor force size. There were 32% fewer announcers in 1980 than there were in 1971. Table 1 shows the changes in labor force size for all artist occupations between 1971 and 1980.

Figure I

Women as a percentage of labor force in artist occupations 1971 and 1980



MALE-FEMALE COMPOSITION

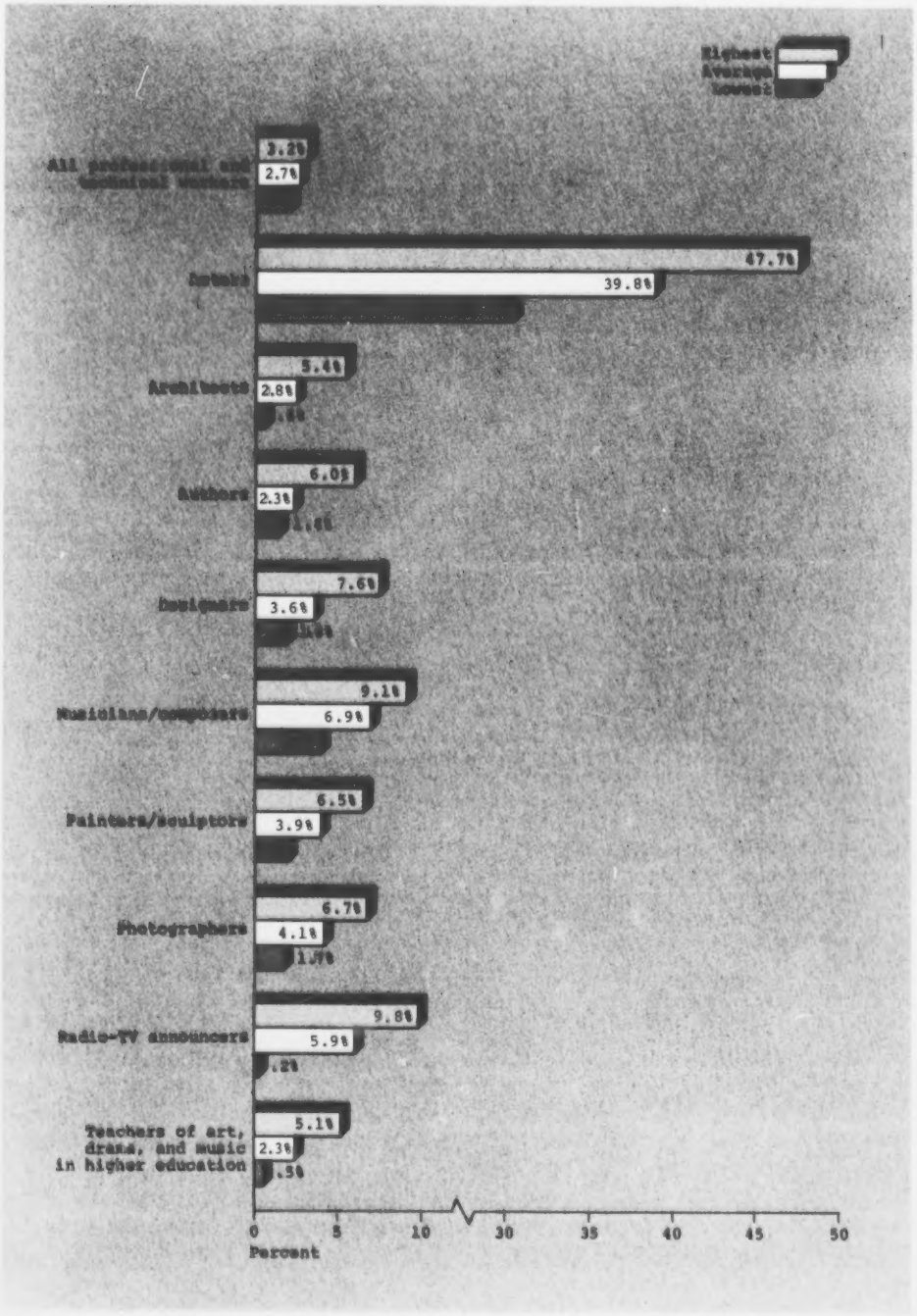
The 1970s also brought changes in the male-female composition of the artist labor force. As in most professions, the proportion of females increased. In 1971, women accounted for 28% of the artist labor force; by 1980 they represented 34%, making the composition about one-third female and two-thirds male. Women are not as well represented in the artist occupations, however, as they are in the total professional population, which is now 45% female. The dancer occupation continues to have the highest proportion of women (83%) and the architect occupation continues to have the lowest (7%). Figure I illustrates the change in the percentage of female artists in each artist occupation between 1971 and 1980.

The greatest change in male-female composition occurred among painters/sculptors and teachers of art, drama, and music in higher education. In 1980 the number of female painters/sculptors surpassed the number of men for the first time, having grown proportionately from 37% to 51% in 1980. The proportion of women also increased substantially among teachers of art, drama, and music, who now include about equal numbers of males and females.

The proportion of women declined among composers and marginally (not to a statistically significant degree) among dancers and actors. The decrease in the percentage of women musician/composers is probably a result of economic conditions during the 1970s, when their high unemployment rate coupled with slow growth in the musicians/composers labor force made it especially difficult for people entering this occupation.

Overall, there was a closer balance between the number of males and females in artist occupations in 1980 than in 1971.

Figure II Unemployment range in artist occupations 1971-80



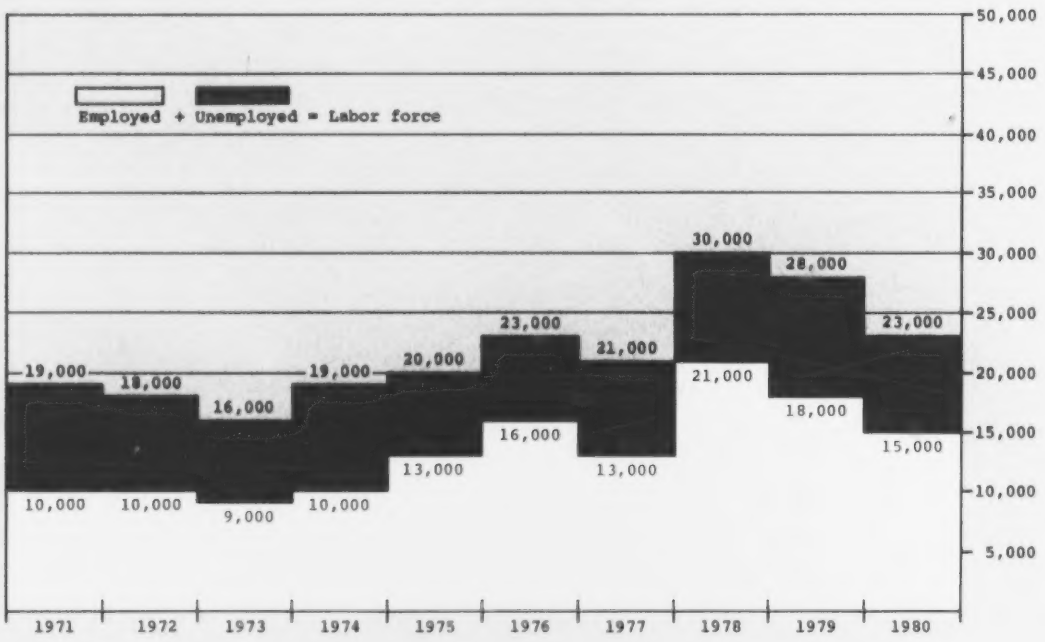
UNEMPLOYMENT

During the 1971-80 decade, artists had higher rates of unemployment than the total of all professional and technical workers, among whom unemployment averaged 2.7%. Unemployment was particularly severe for actors. Of approximately 23,000 actors reported in the 1980 labor force about 8,000 were without jobs, representing an unemployment rate of 35%. No other artist occupation had an unemployment rate approaching this figure, and the average for artists in occupations other than acting in 1980 was 3.4%. Because of wide variations in labor force size and employment levels, it is important to examine each artist occupation separately. In general, however, artist unemployment rates were highest in 1975 and 1976, lowest in the 1972-73 period and again in 1978-79. This corresponds to the recession-recovery cycle for the general economy during the decade. However, unemployment rates for artists fluctuated more from year to year than the rates for all professional and technical workers, suggesting that employment may be more volatile in artist occupations. The range of artist employment is shown in Figure II.

OCCUPATIONAL OVERVIEWS

Employment figures for the total artist population obscure the many variations among the individual artist occupations. Although most of the artist groups experienced growth of labor force in 1971-80 and most had higher than average unemployment during recession, considerable variation existed. Growth and employment levels in some artist occupations, particularly in the performing arts, were more seriously affected by national economic reverses than other artist occupations. The trend for each artist occupation between 1971 and 1980 is presented in Figures III-XXI on the following pages.

Figure III Actors: employment trends 1971-80



The employment situation was bleak for actors throughout the 1970s. At the beginning of the decade, nearly half of all actors were out of work. While unemployment dropped to 31% by 1976, it rose again to over 35% by 1979-80. Poor employment prospects probably contributed to the slow growth in the actor labor force over the decade. The actor labor force, which peaked in 1978 at 30,000, declined to about 23,000 by 1980.

Figure IV **Actors: unemployment rate 1971-80**

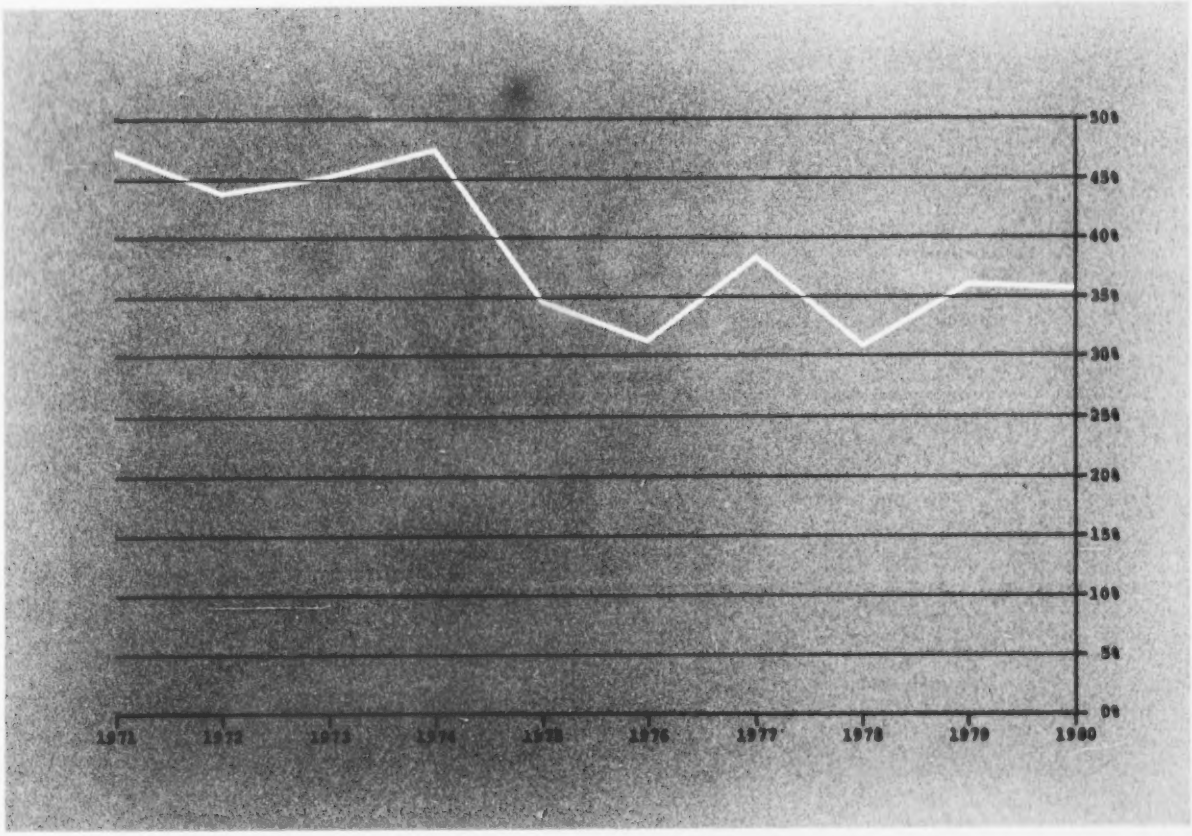
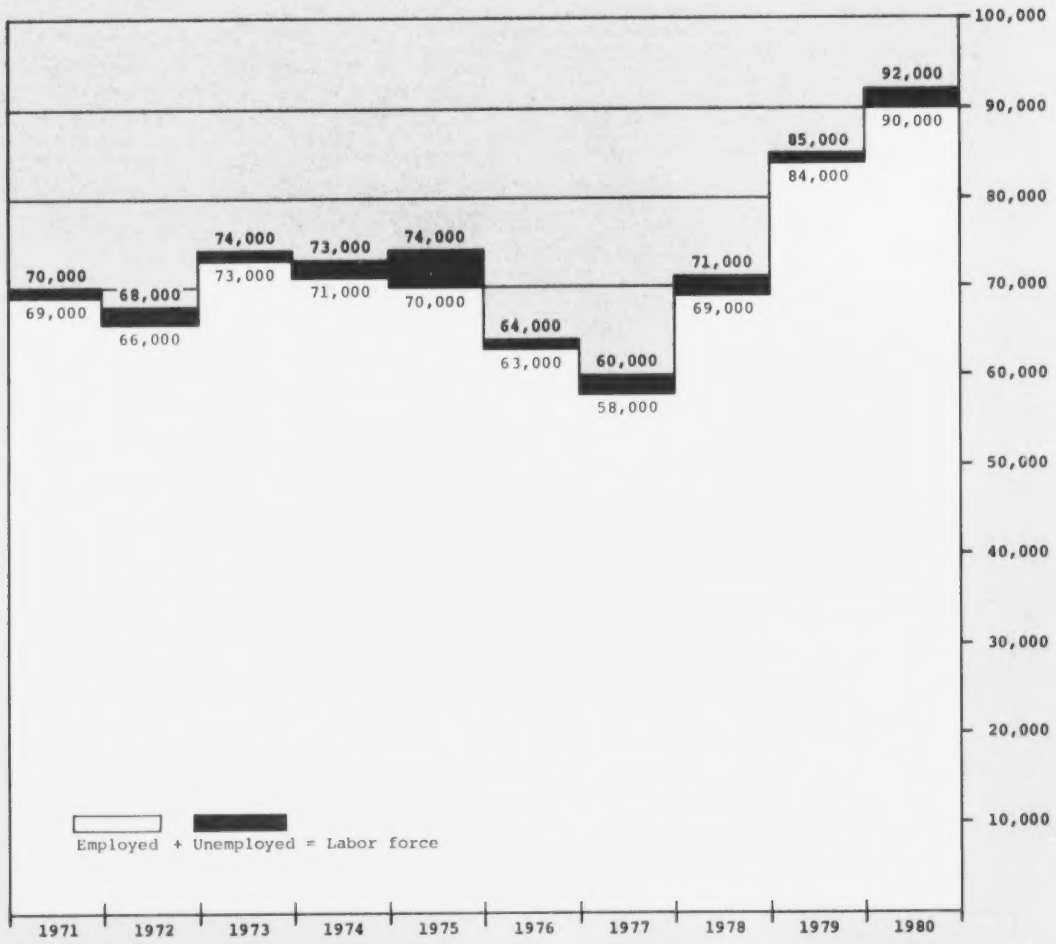


Figure V Architects: employment trends 1971-80



The architect occupation tends to be sensitive to the ups and downs of the general economy. Unemployment peaked at 5.4% at the height of the 1974-75 recession. A sharp decline in the number of architects working or seeking work followed, so that there were fewer persons in the architect labor force in 1977 than in 1971. However, more than 30,000 persons (representing a 50% increase in the labor force) entered or reentered architect occupations between 1977 and 1980, and notwithstanding this growth, at the end of the decade the unemployment rate of 1.7% was one of the lowest for artists.

Figure VI **Architects: unemployment rate 1971-80**

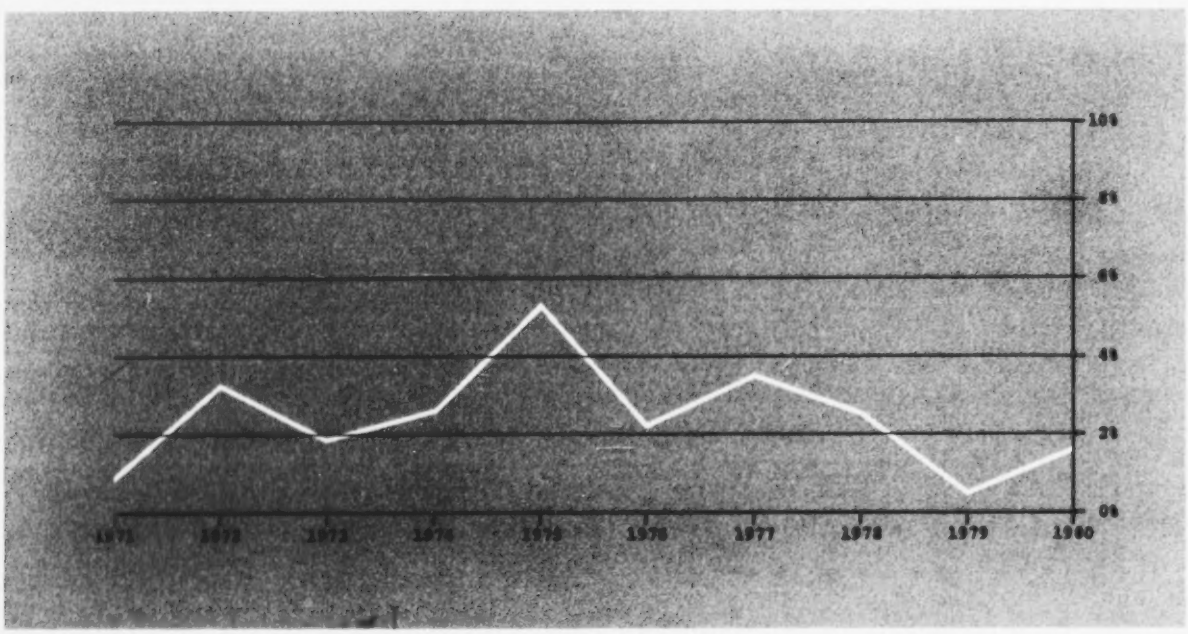
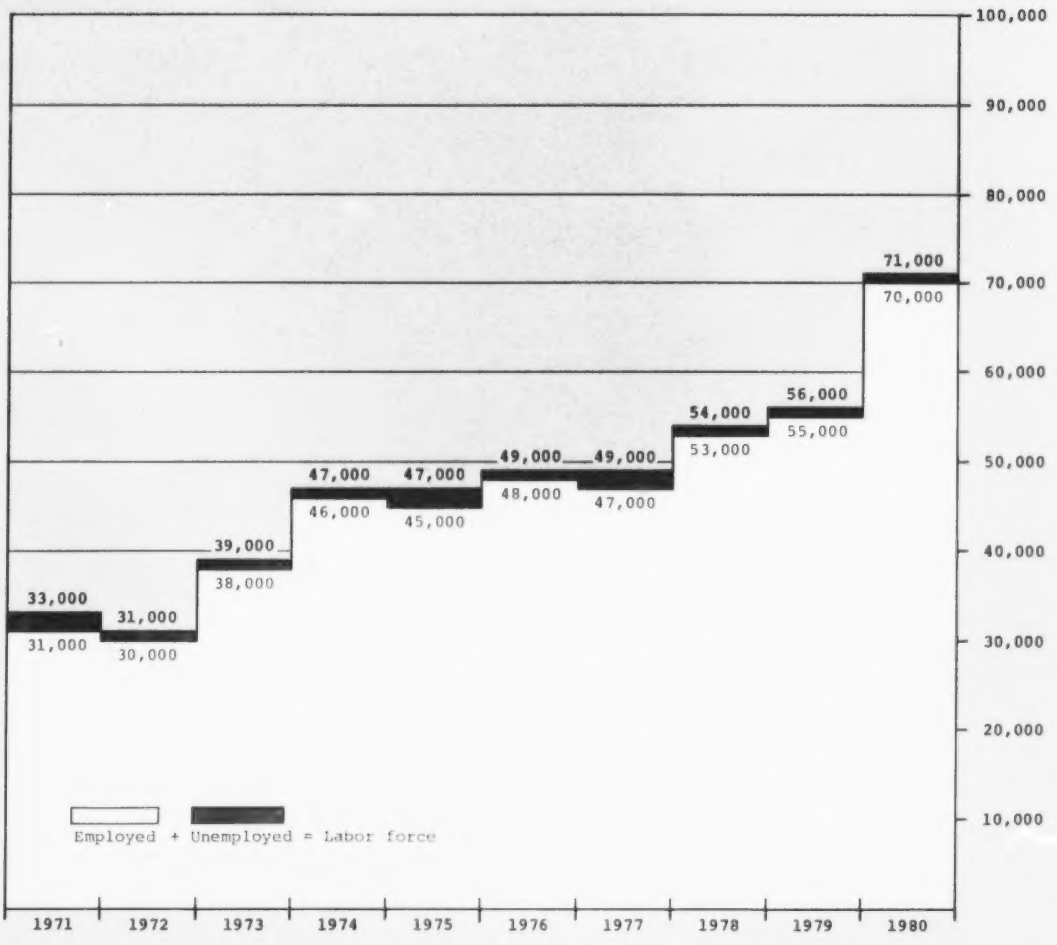


Figure VII **Authors: employment trends 1971-80**



20

The author labor force grew faster than any other artist occupation during the 1970s—increasing its number by 115%. Although the unemployment rate was relatively high, 6% in 1971, it dropped gradually to less than 2% at the end of the decade. The 1974-75 recession had only moderate effect on work prospects—with unemployment increasing to only 3.6% in 1975. This was lower than the recession unemployment rate for most other artist occupations, probably reflecting the high frequency of self-employment among authors.

Figure VIII **Authors: unemployment rate 1971-80**

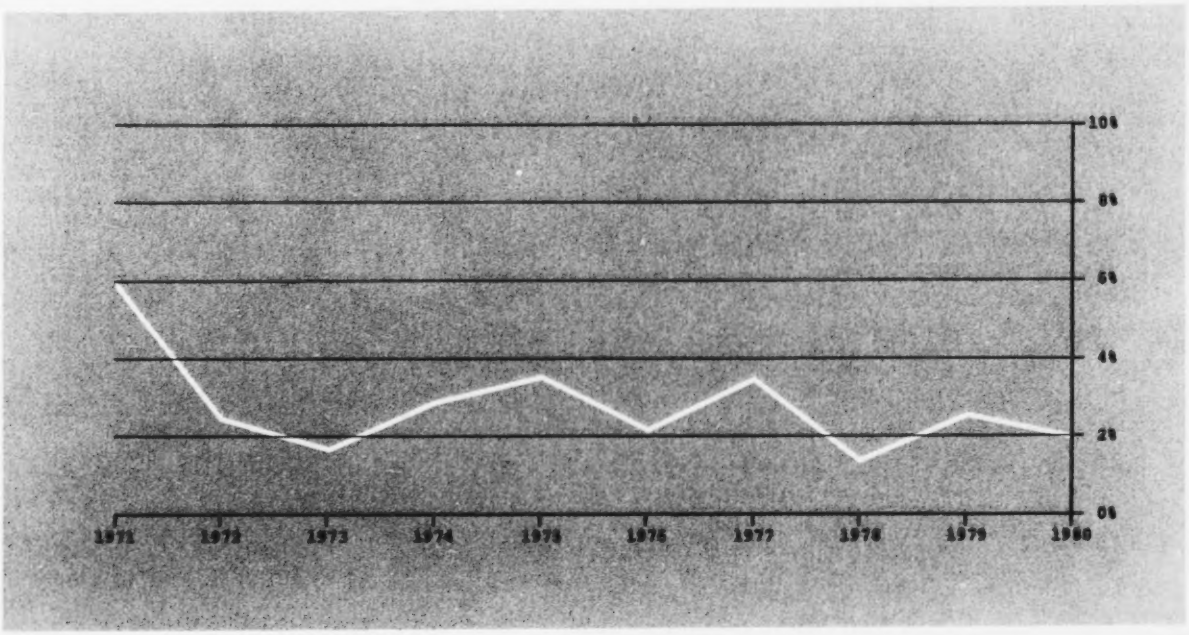
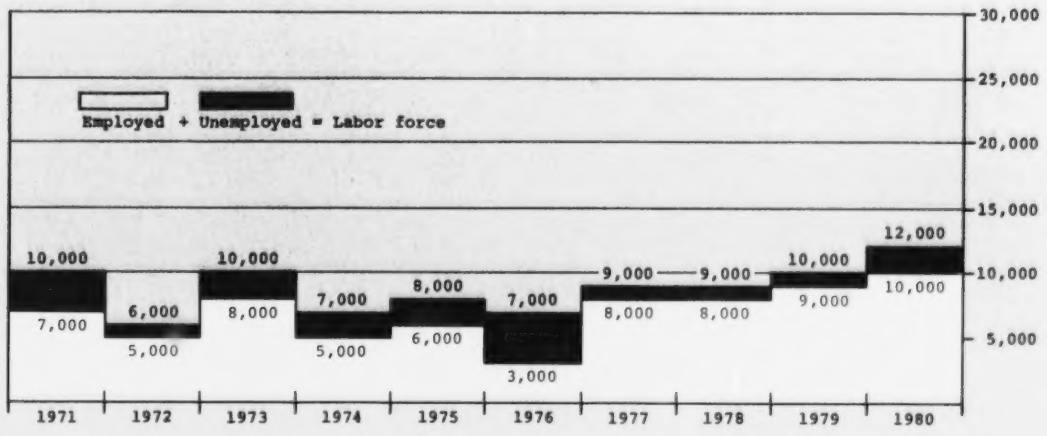
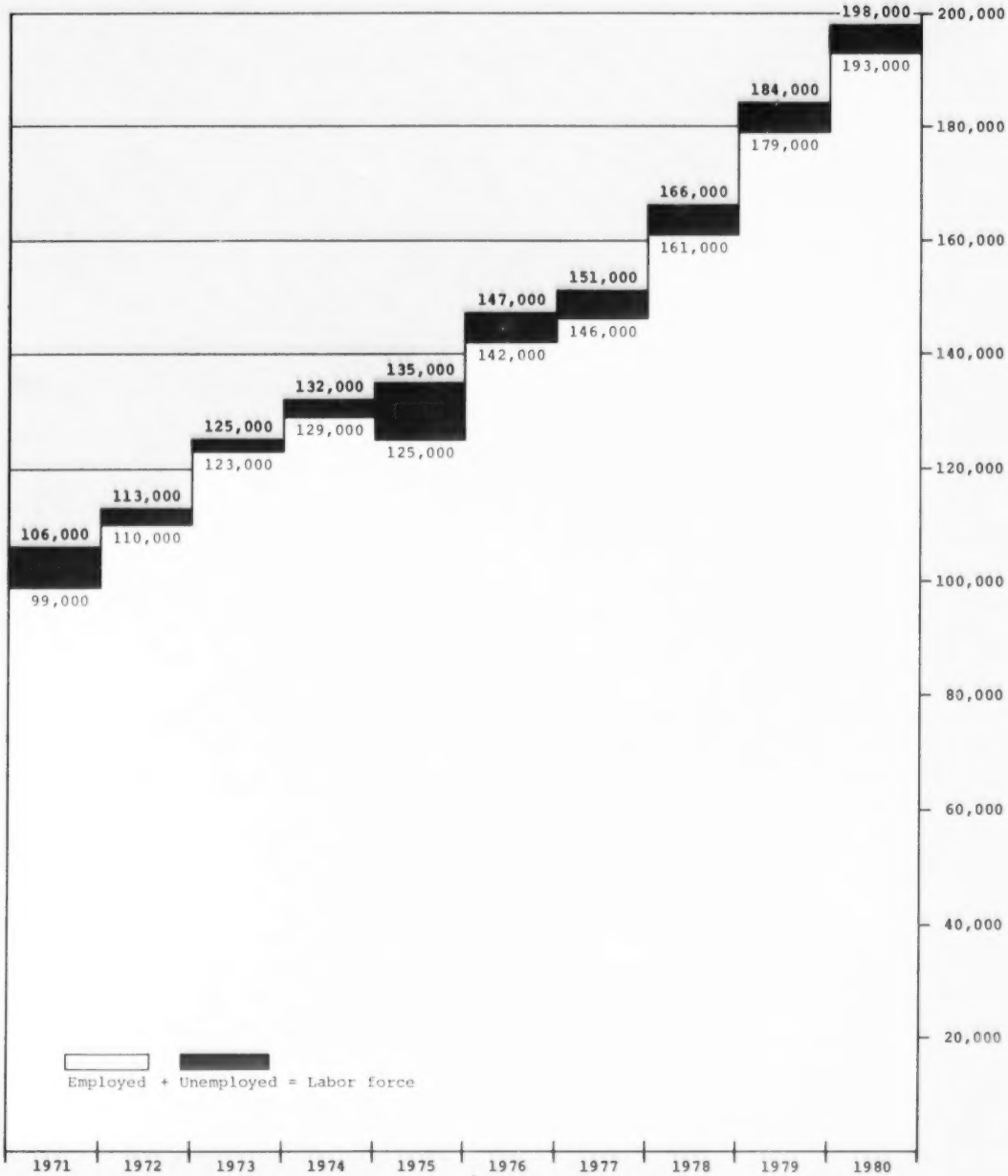


Figure IX Dancers: employment trends 1971-80



The number of dancers in the labor force fluctuated considerably throughout the decade (reflecting in part the higher degree of error associated with the small number of dancers in the sample) but moved up steadily in the latter half and reached 12,000 by 1980. Unemployment rates are not available through the use of the CPS data because the total number of dancers is so small. Too few dancers are represented in the survey sample to permit dependable unemployment estimates.

Figure X Designers: employment trends 1971-80



Designers had steady labor force gains every year from 1971 to 1980, increasing their numbers by a substantial 87% over the decade. By 1980 there were about 200,000 designers in the labor force. Unemployment was relatively low during most of the period but, like most other professions, designers were affected by the 1974-75 recession which caused a tripling of their unemployment rate to 7.6% in 1975. Designers' employment, however, bounced back in 1976 and by 1980 only 2.6% of designers were out of work.

Figure XI **Designers: unemployment rate 1971-80**

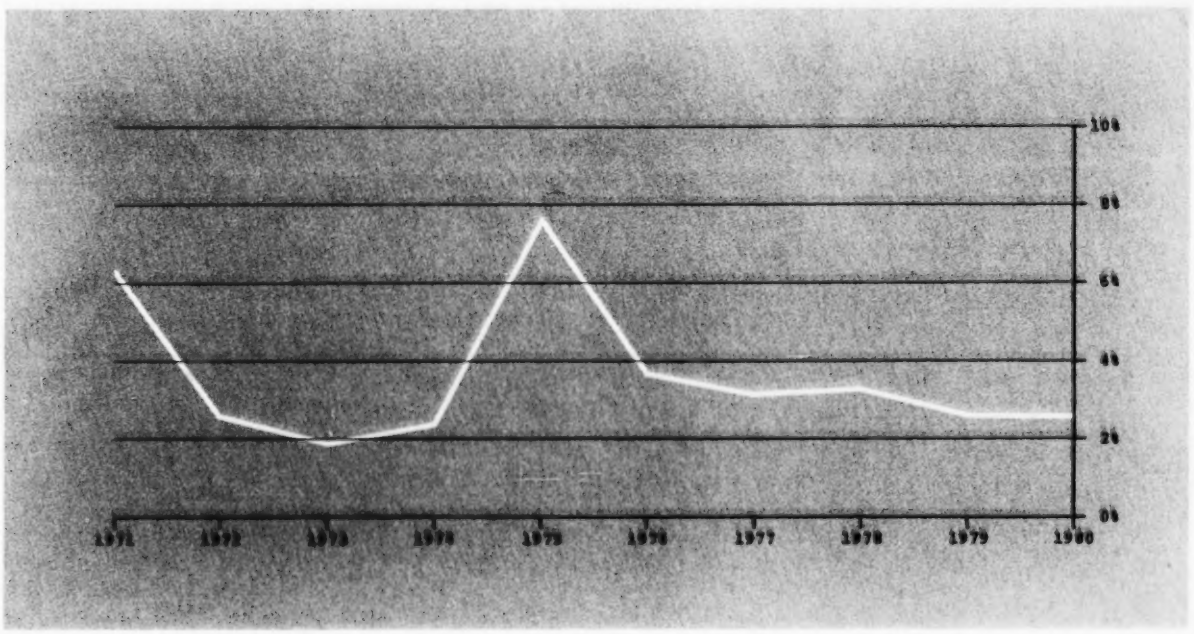
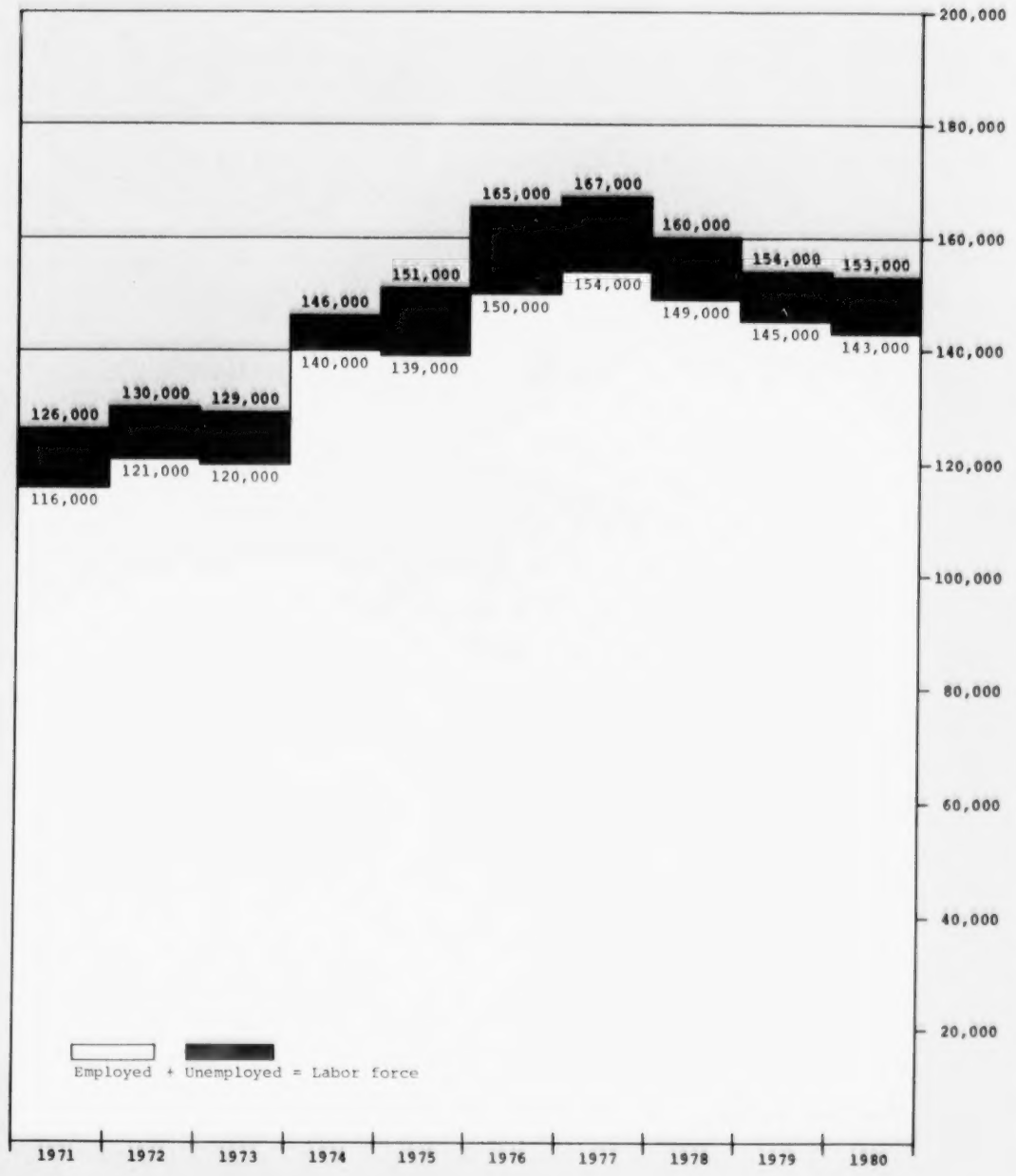


Figure XII **Musicians and composers: employment trends 1971-80**



Employment prospects seemed good for musicians and composers in the early 1970s. Despite substantial growth in the labor force, unemployment was less than 4% in 1974. The recession affected this picture dramatically, however, and musicians and composers have never really recovered from its impact. The unemployment rate, which exceeded 9% in 1976, remained a high 6.2% in 1980. The decreased unemployment rate reflected a smaller number of job-seekers rather than growth of those employed. The number of employed musicians and composers, which declined by 11,000 between 1977 and 1980, suggests that many abandoned the field.

Figure XIII **Musicians and composers: unemployment rate 1971-80**

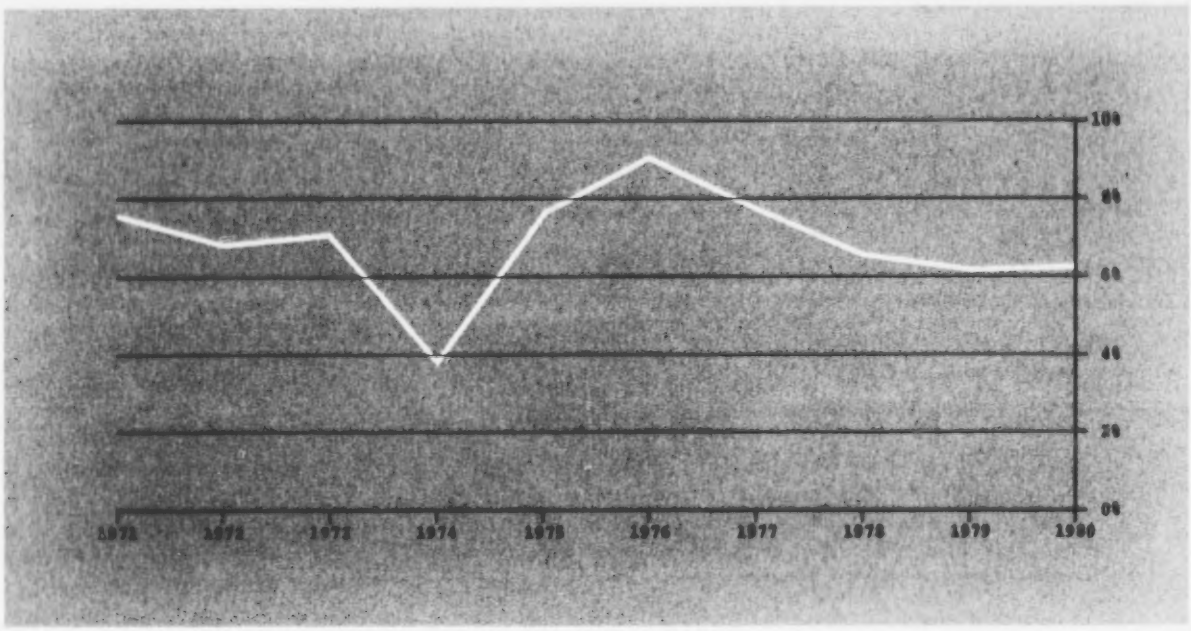
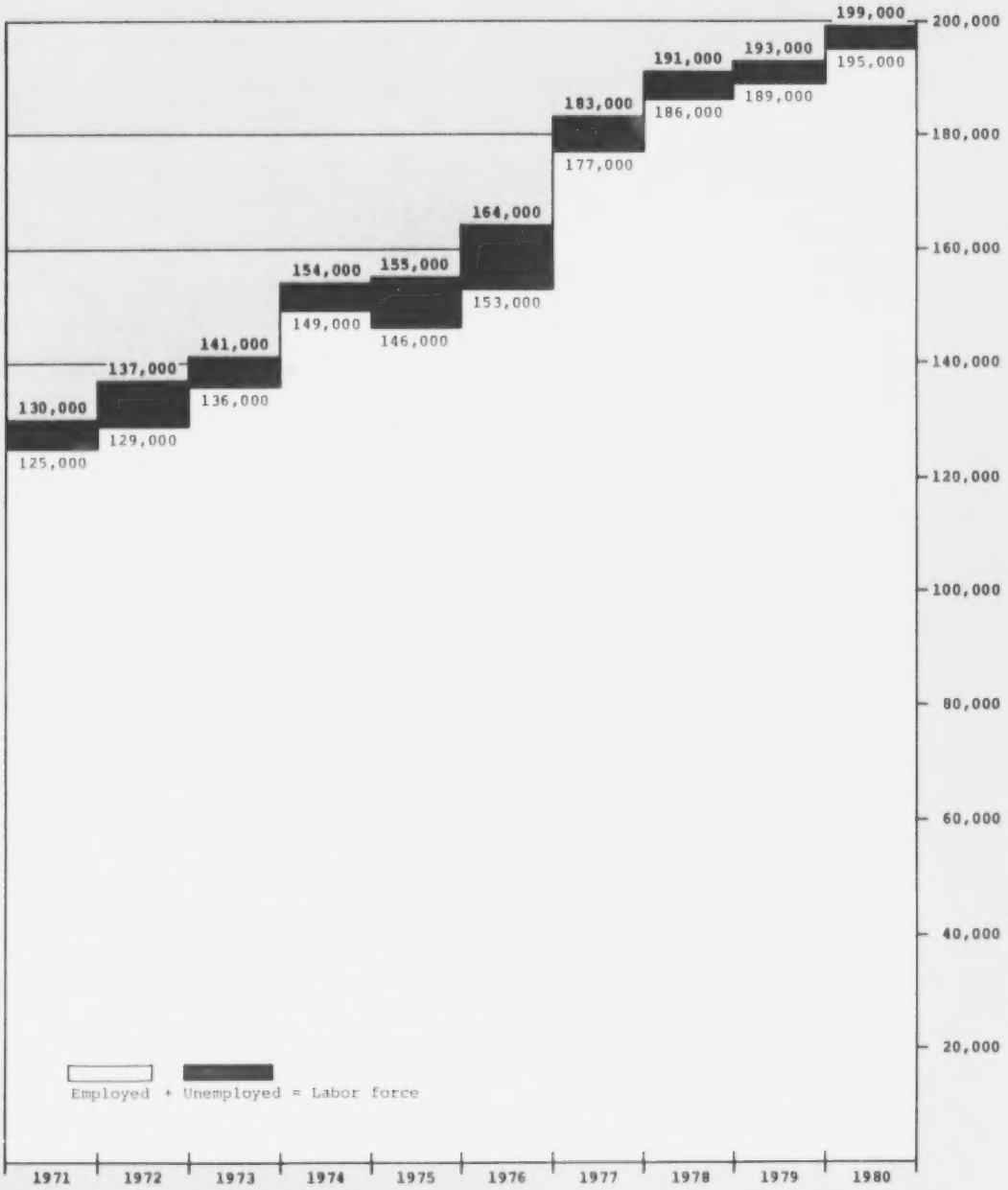


Figure XIV Painters and sculptors: employment trends 1971-80



Painters and sculptors are the largest artist occupation group, with about 200,000 members in 1980 reflecting steady labor force gains throughout the decade. Painters and sculptors suffered only moderate employment setbacks from the mid-decade recession, possibly because of relatively high self-employment. The number of employed painters and sculptors decreased by 3,000 in 1975 and the rate of unemployment reached 6.5% the following year, but they recovered these losses in 1977 and subsequently grew through the end of the decade.

Figure XV **Painters and sculptors: unemployment rate 1971-80**

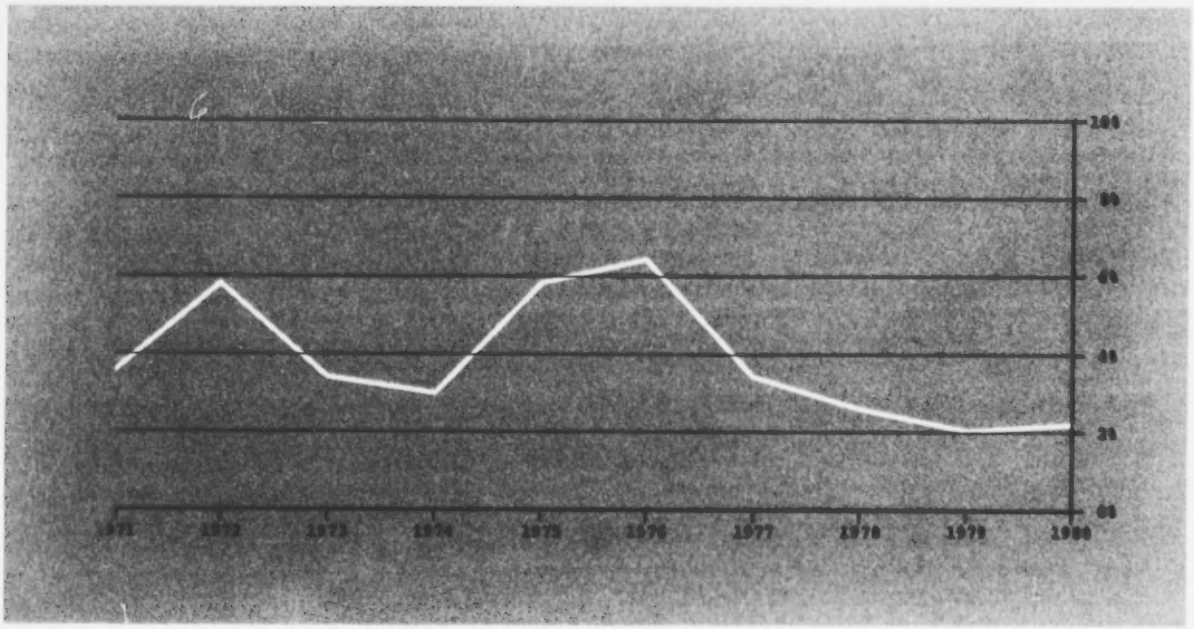
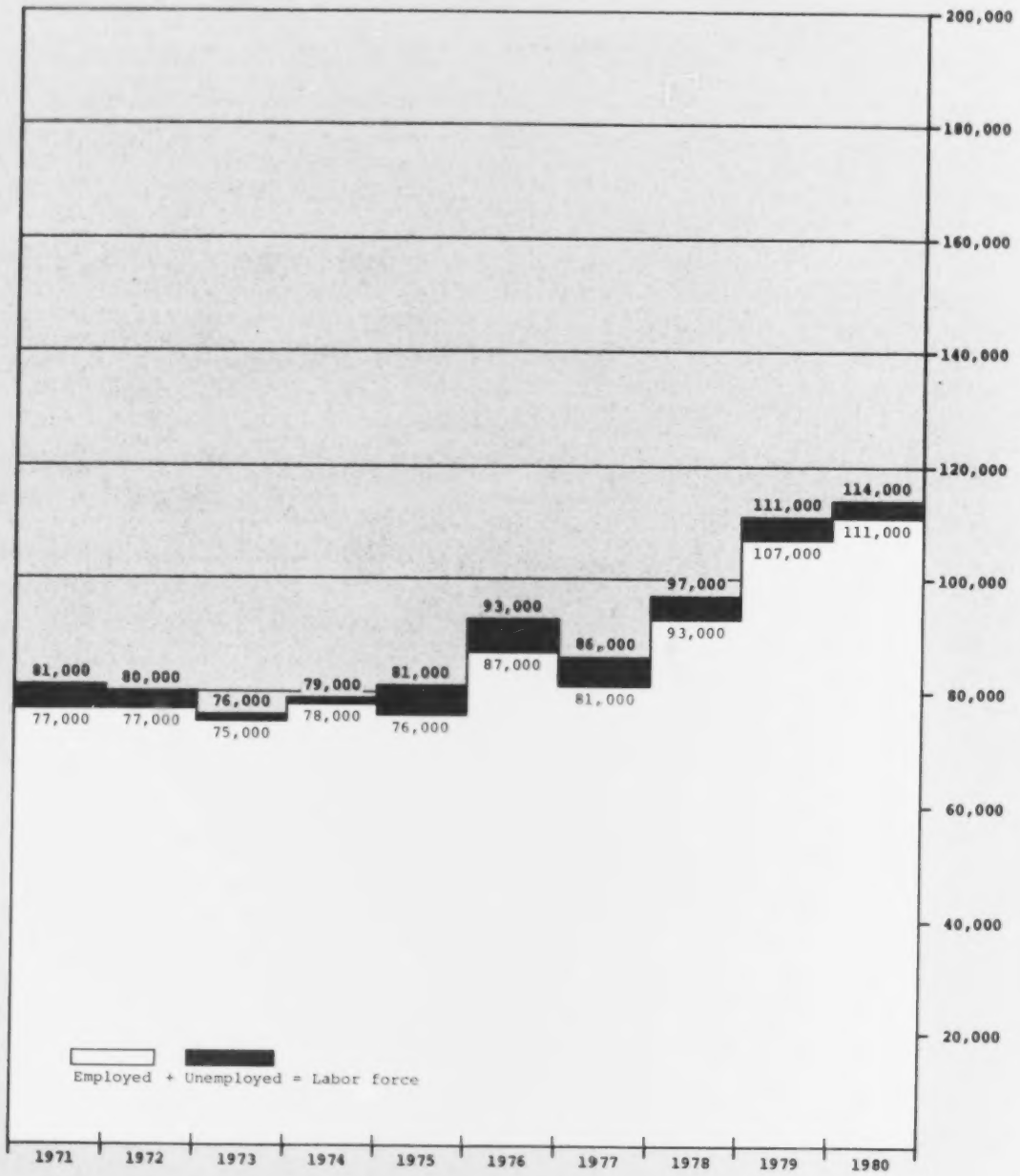


Figure XVI Photographers: employment trends 1971-80



Photographer employment and labor force levels fluctuated throughout most of the decade. The photographer labor force dropped between 1971 and 1973, then rose through 1976, dropped in 1977, and then made substantial gains. The 1974-75 recession undoubtedly played an important role in this fluctuation; unemployment, which peaked at about 6.6% in 1975-76, could have discouraged prospective entrants into the field. At the end of the 1970s, photographer employment is healthy, with 33,000 more photographers than in 1971 and an unemployment rate of only 2.8%.

Figure XVII **Photographers: unemployment rate 1971-80**

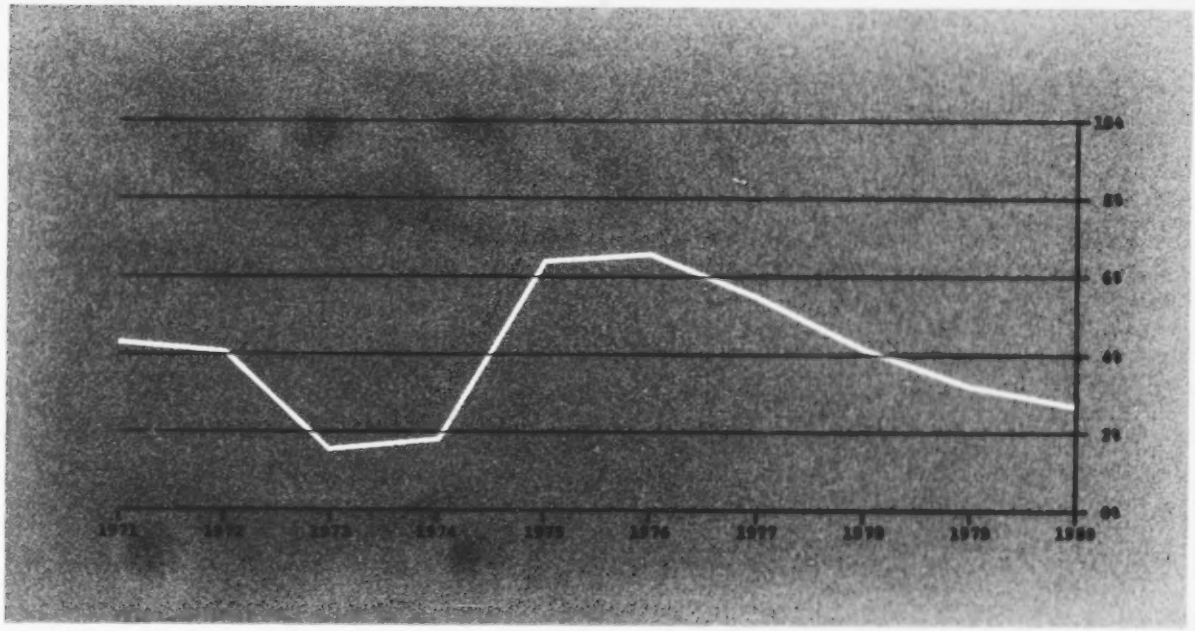
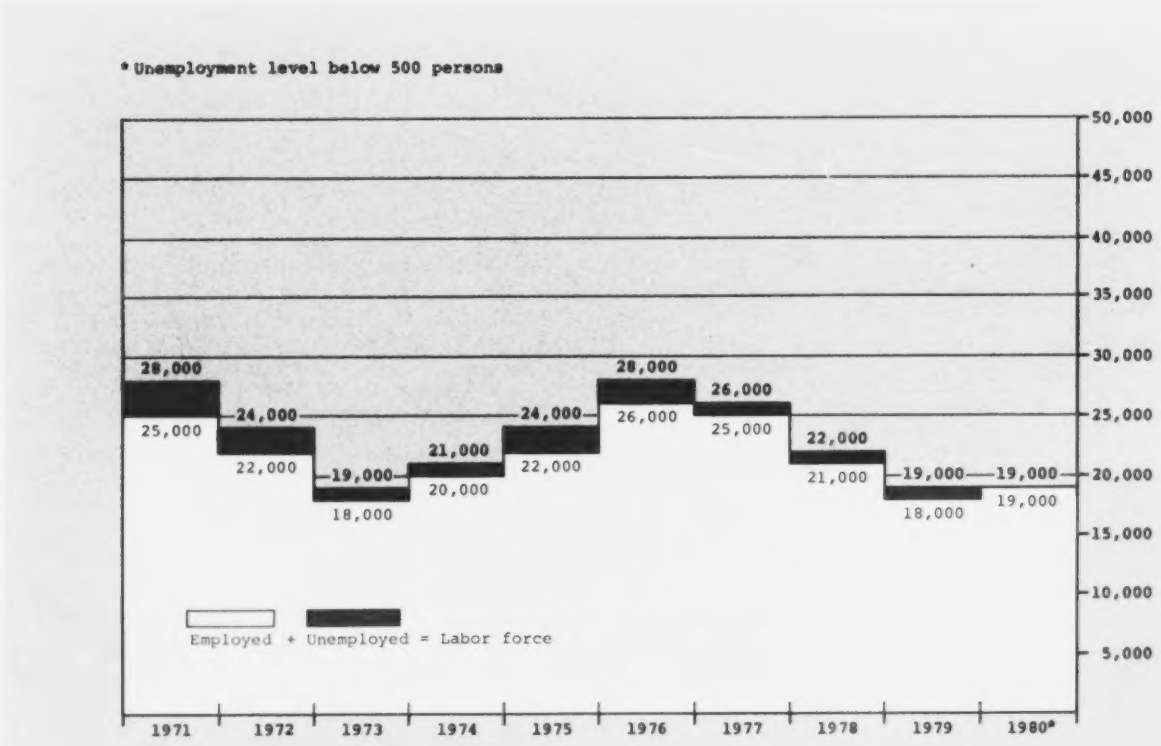


Figure XVIII Radio-TV announcers: employment trends 1971-80



This was the only artist labor force that decreased during the 1970s, with 28,000 members dropping to about 19,000 by 1980 (a net loss of 32%). There was some fluctuation in numbers—loss in the early part of the decade, growth in the middle, and renewed loss from 1976 to 1980. Because many radio-TV announcers apparently abandoned the field, the unemployment rate for this occupation was low toward the end of the decade—amounting to less than 1% in 1980 in contrast with the 9.8% unemployment rate of 1971.

Figure XIX **Radio-TV announcers: unemployment rate 1971-80**

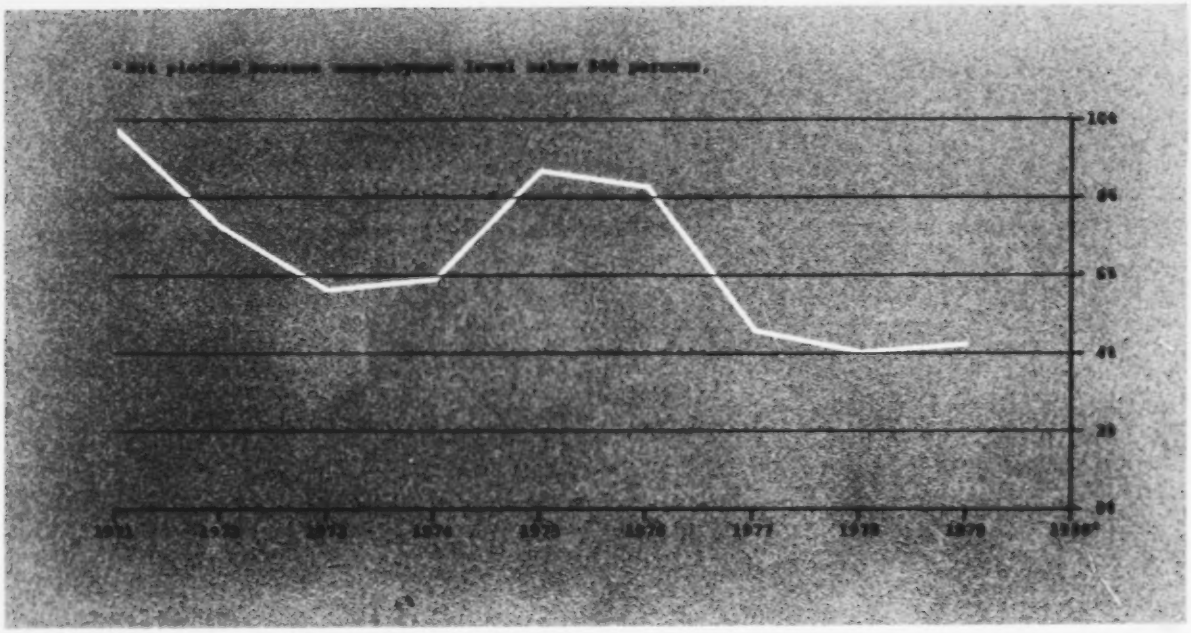
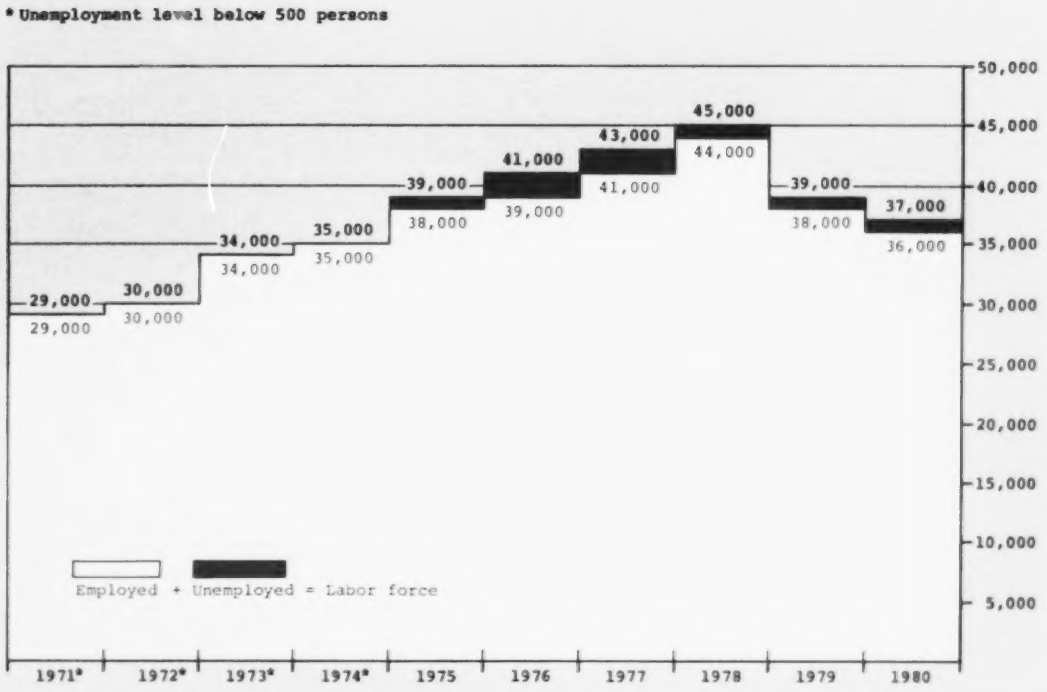
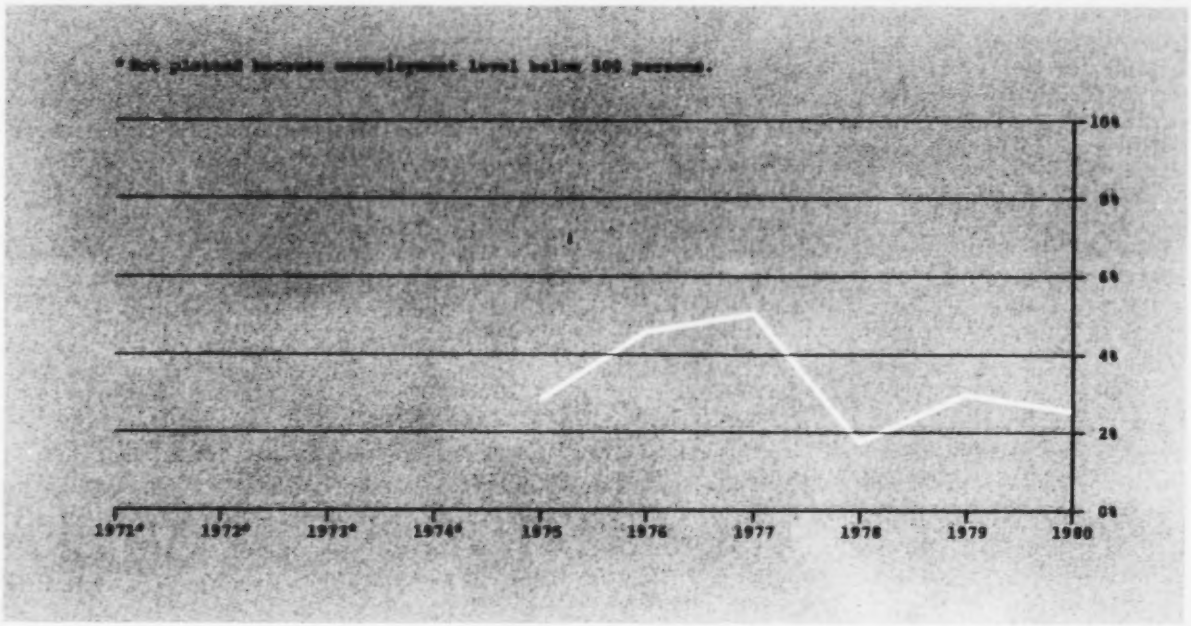


Figure XX Teachers of art, drama, and music in higher education: employment trends 1971-80



The labor force for this occupation group made only a moderate gain of 28% during the 1970s. The labor force grew substantially during the 1971-78 period, numbering as many as 45,000 in 1978, but dropped to about 37,000 between 1978 and 1980, probably as the result of general decline in enrollments at colleges and universities. Most of the 8,000 former teachers found work in other occupations or dropped out of the labor force entirely because they fail to figure in teacher unemployment totals. In general, employment was high for this group during the decade, with unemployment peaking at slightly more than 5% in 1977 (probably reflecting an oversupply that presaged the declines of 1978-80) and down to 2.5% by 1980.

Figure XXI **Teachers of art, drama, and music in higher education: unemployment rate 1971-80**



APPENDICES

APPENDIX A

DETAILED TABLES

APPENDIX B

RELIABILITY OF CURRENT POPULATION SURVEY (CPS) STATISTICS

CURRENT POPULATION SURVEY (CPS) AS A SOURCE OF ARTIST OCCUPATION DATA

APPENDIX A

DETAILED TABLES (2 AND 3)

Table 2 **Labor force levels in artist occupations by sex 1971-80**

Occupation	1971	1972	1973	1974	1975	1976
All professional and technical workers	11,416,000	11,741,000	12,037,000	12,623,000	13,173,000	13,789,000
Male	6,933,000	7,110,000	7,186,000	7,482,000	7,700,000	7,933,000
Female	4,483,000	4,631,000	4,852,000	5,142,000	5,474,000	5,836,000
Actors	19,000	18,000	16,000	19,000	20,000	23,000
Male	11,000	13,000	7,000	11,000	13,000	13,000
Female	8,000	5,000	8,000	8,000	7,000	9,000
Architects	70,000	68,000	74,000	73,000	74,000	64,000
Male	67,000	66,000	72,000	71,000	71,000	62,000
Female	3,000	2,000	2,000	2,000	3,000	2,000
Authors	33,000	31,000	39,000	47,000	47,000	49,000
Male	21,000	18,000	18,000	27,000	26,000	25,000
Female	12,000	13,000	20,000	21,000	20,000	24,000
Dancers	10,000	6,000	10,000	7,000	8,000	7,000
Male	1,000	1,000	3,000	1,000	3,000	2,000
Female	9,000	5,000	7,000	5,000	5,000	5,000
Designers	106,000	113,000	125,000	132,000	135,000	147,000
Male	78,000	91,000	98,000	99,000	103,000	112,000
Female	28,000	21,000	27,000	33,000	34,000	35,000
Musicians/composers	126,000	130,000	129,000	146,000	151,000	165,000
Male	82,000	92,000	88,000	102,000	104,000	113,000
Female	45,000	39,000	41,000	44,000	47,000	52,000
Painters/sculptors	130,000	137,000	141,000	154,000	155,000	164,000
Male	82,000	78,000	80,000	89,000	84,000	89,000
Female	48,000	60,000	60,000	65,000	72,000	75,000
Photographers	81,000	80,000	76,000	79,000	81,000	93,000
Male	67,000	67,000	63,000	67,000	67,000	79,000
Female	13,000	13,000	13,000	13,000	14,000	14,000
Radio-TV announcers	28,000	24,000	19,000	21,000	24,000	28,000
Male	25,000	22,000	18,000	19,000	22,000	27,000
Female	1,000	1,000	1,000	2,000	2,000	1,000
Teachers (higher ed.)*	29,000	30,000	34,000	35,000	39,000	41,000
Male	20,000	21,000	22,000	21,000	22,000	25,000
Female	9,000	9,000	11,000	14,000	17,000	15,000
Other artists	65,000	69,000	74,000	73,000	89,000	85,000
Male	48,000	46,000	47,000	46,000	58,000	53,000
Female	16,000	23,000	27,000	26,000	30,000	32,000
All artists	697,000	706,000	737,000	786,000	823,000	866,000
Male	504,000	515,000	516,000	553,000	573,000	600,000
Female	192,000	191,000	217,000	233,000	251,000	264,000

Note: Male plus female labor force may not equal occupation total due to rounding.

* Art, drama, and music.

1977	1978	1979	1980
14,118,000	14,626,000	15,422,000	16,008,000
3,044,000	8,326,000	8,692,000	8,869,000
6,074,000	6,300,000	6,740,000	7,137,000
21,000	30,000	28,000	23,000
12,000	17,000	16,000	14,000
10,000	12,000	12,000	9,000
60,000	71,000	85,000	92,000
58,000	66,000	79,000	86,000
3,000	4,000	5,000	6,000
49,000	54,000	56,000	71,000
31,000	33,000	30,000	41,000
19,000	21,000	26,000	31,000
9,000	9,000	10,000	12,000
3,000	3,000	2,000	2,000
5,000	7,000	8,000	10,000
151,000	166,000	184,000	198,000
115,000	120,000	131,000	139,000
37,000	46,000	53,000	60,000
167,000	160,000	154,000	153,000
117,000	112,000	101,000	108,000
50,000	48,000	53,000	44,000
183,000	191,000	193,000	199,000
101,000	103,000	105,000	97,000
83,000	87,000	89,000	101,000
86,000	97,000	111,000	114,000
73,000	83,000	86,000	90,000
13,000	14,000	24,000	24,000
26,000	22,000	18,000	19,000
23,000	19,000	15,000	14,000
3,000	3,000	3,000	5,000
43,000	45,000	39,000	37,000
28,000	29,000	25,000	19,000
15,000	16,000	14,000	18,000
83,000	89,000	90,000	103,000
52,000	58,000	57,000	69,000
30,000	31,000	33,000	34,000
878,000	930,000	969,000	1,020,000
613,000	643,000	647,000	678,000
268,000	289,000	320,000	342,000

Table 3 Labor force, employment, and unemployment in artist occupations 1971-80

Occupation	1971	1972	1973	1974	1975	1976
All professional and technical workers	11,416,000	11,741,000	12,037,000	12,623,000	13,173,000	13,769,000
Employed	11,085,000	11,459,000	11,777,000	12,338,000	12,748,000	13,329,000
Unemployed	331,000	282,000	260,000	285,000	425,000	440,000
Unemployment rate	2.9%	2.4%	2.2%	2.3%	3.2%	3.2%
Actors	19,000	18,000	16,000	19,000	20,000	23,000
Employed	10,000	10,000	9,000	10,000	13,000	16,000
Unemployed	9,000	8,000	7,000	9,000	7,000	7,000
Unemployment rate	47.5%	44.0%	45.1%	47.7%	34.8%	31.1%
Architects	70,000	68,000	74,000	73,000	74,000	64,000
Employed	69,000	66,000	73,000	71,000	70,000	63,000
Unemployed	1,000	2,000	1,000	2,000	4,000	1,000
Unemployment rate	1.0%	3.3%	1.9%	2.7%	5.4%	2.3%
Authors	33,000	31,000	39,000	47,000	47,000	49,000
Employed	31,000	30,000	38,000	46,000	45,000	48,000
Unemployed	2,000	1,000	1,000	1,000	2,000	1,000
Unemployment rate	6.0%	2.5%	1.7%	2.9%	3.6%	2.1%
Dancers	10,000	6,000	10,000	7,000	8,000	7,000
Employed	7,000	5,000	8,000	5,000	6,000	3,000
Unemployed	3,000	1,000	2,000	2,000	2,000	4,000
Unemployment rate	*	*	*	*	*	*
Designers	106,000	113,000	125,000	132,000	135,000	147,000
Employed	99,000	110,000	123,000	129,000	125,000	142,000
Unemployed	7,000	3,000	2,000	3,000	10,000	5,000
Unemployment rate	6.2%	2.5%	1.8%	2.3%	7.6%	3.6%
Musicians/composers	126,000	130,000	129,000	146,000	151,000	165,000
Employed	116,000	121,000	120,000	140,000	139,000	150,000
Unemployed	10,000	9,000	9,000	6,000	12,000	15,000
Unemployment rate	7.7%	6.9%	7.2%	3.9%	7.7%	9.1%
Painters/sculptors	130,000	137,000	141,000	154,000	155,000	164,000
Employed	125,000	129,000	136,000	149,000	146,000	153,000
Unemployed	5,000	8,000	5,000	5,000	9,000	11,000
Unemployment rate	3.7%	5.9%	3.5%	3.1%	5.9%	6.5%
Photographers	81,000	80,000	76,000	79,000	81,000	93,000
Employed	77,000	77,000	75,000	78,000	76,000	87,000
Unemployed	4,000	3,000	1,000	1,000	5,000	6,000
Unemployment rate	4.4%	4.1%	1.7%	1.9%	6.5%	6.7%
Radio-TV announcers	28,000	24,000	19,000	21,000	24,000	28,000
Employed	25,000	22,000	18,000	20,000	22,000	26,000
Unemployed	3,000	2,000	1,000	1,000	2,000	2,000
Unemployment rate	9.8%	7.3%	5.7%	6.0%	8.7%	8.3%
Teachers (higher ed.)**	29,000	30,000	34,000	35,000	39,000	41,000
Employed	29,000	30,000	34,000	35,000	38,000	39,000
Unemployed	*	*	*	*	1,000	2,000
Unemployment rate	*	*	*	*	2.9%	4.6%
Other artists	65,000	69,000	74,000	73,000	89,000	85,000
Employed	60,000	66,000	72,000	70,000	84,000	79,000
Unemployed	5,000	3,000	2,000	3,000	5,000	6,000
Unemployment rate	7.4%	4.4%	2.9%	3.5%	5.2%	6.5%
All artists	697,000	706,000	737,000	786,000	823,000	866,000
Employed	648,000	666,000	706,000	753,000	764,000	807,000
Unemployed	49,000	40,000	31,000	33,000	59,000	59,000
Unemployment rate	7.0%	5.7%	4.4%	4.2%	7.2%	6.8%

Note: Employed plus unemployed may not equal occupation total due to rounding. Unemployment rates are computed based on unrounded estimates of the unemployment and labor force levels.

* Data base is too small to provide a meaningful estimate (labor force of 10,000 or less; unemployment level below 500).

** Art, drama, and music.

1977	1978	1979	1980
14,118,000	14,636,000	15,422,000	16,008,000
13,692,000	14,245,000	15,049,000	15,613,000
426,000	391,000	373,000	395,000
3.0%	2.6%	2.4%	2.5%
21,000	30,000	28,000	23,000
13,000	21,000	18,000	15,000
8,000	9,000	10,000	8,000
38.5%	30.5%	35.8%	35.4%
60,000	71,000	85,000	92,000
58,000	69,000	84,000	90,000
2,000	2,000	1,000	2,000
3.6%	2.6%	.6%	1.7%
49,000	54,000	56,000	71,000
47,000	53,000	55,000	70,000
2,000	1,000	1,000	1,000
3.5%	1.4%	2.6%	1.9%
9,000	9,000	10,000	12,000
8,000	8,000	9,000	10,000
1,000	1,000	1,000	2,000
*	*	*	14.2%
151,000	166,000	184,000	198,000
146,000	161,000	179,000	193,000
5,000	5,000	5,000	5,000
3.1%	3.3%	2.6%	2.6%
167,000	160,000	154,000	153,000
154,000	149,000	145,000	143,000
13,000	11,000	9,000	10,000
7.8%	6.6%	6.1%	6.2%
183,000	191,000	193,000	199,000
177,000	186,000	189,000	195,000
6,000	5,000	4,000	4,000
3.5%	2.7%	2.0%	2.2%
86,000	97,000	111,000	114,000
81,000	93,000	107,000	111,000
5,000	4,000	4,000	3,000
5.6%	4.2%	3.3%	2.8%
26,000	22,000	19,000	19,000
25,000	21,000	18,000	19,000
1,000	1,000	1,000	*
4.6%	4.0%	4.2%	*
43,000	45,000	39,000	37,000
41,000	44,000	38,000	36,000
2,000	1,000	1,000	1,000
5.1%	1.8%	3.0%	2.5%
83,000	89,000	90,000	102,000
78,000	84,000	86,000	96,000
5,000	5,000	4,000	6,000
6.6%	5.9%	4.5%	6.0%
878,000	938,000	969,000	1,020,000
828,000	893,000	928,000	978,000
50,000	45,000	41,000	42,000
5.7%	4.8%	4.2%	4.1%

APPENDIX B

RELIABILITY OF CURRENT POPULATION SURVEY (CPS) STATISTICS

The data in this report are based on responses obtained from the Current Population Survey which collects information from a representative sample rather than from every person in the nation. The statistics are therefore subject to sampling error, or sampling variability as it is also known. Precise measure of sampling error calls for comparison of the figure obtained from a complete count or census with one arrived at from a sample. Since this is not possible, a "standard error" representing the average deviation of all possible samples is generally used as indication of how well an estimate from a sample approximates a complete count. The Bureau of Labor Statistics publishes standard error tables from which figures relevant to the artist occupation samples can be extracted.

Sampling variability occurs in both directions, plus and minus, and small errors occur more often than larger errors, so that about 68% of the time, variability will be less than the standard error. About 90% of the time, the figure based on a complete count would be in the range of plus or minus 1.6 times the standard error of the estimate. The term "confidence interval" is used to designate such levels of probability. The range from the standard error below the estimate to the standard error above it is called the 68% confidence interval. The range from 1.6 times the standard error below the estimate to 1.6 times the standard error above it is called the 90% confidence interval.

Table 4 provides the standard error and 68% and 90% confidence intervals for labor force, employment, and unemployment estimates for each of the artist occupations in 1980. Designers, for example, had an estimated labor force of 198,000 in 1980. The standard error for this estimate was 13,000. Thus, the actual number in the designer labor force has a 68% probability of being somewhere between 185,000 and 211,000. There is a 90% probability that the number is somewhere between 177,000 and 219,000 (198,000 plus and minus 1.6 times 13,000).

Many of the estimates for artist occupations shown in Table 4 have large standard errors relative to the size of the estimate. The small 12,000 labor force estimate for dancers has a 3,000 standard error—or 25% of the estimate; and even at the other extreme, the standard error for 199,000 estimated painters/sculptors is 13,000 or almost 7%. Because these sampling errors are so large relative to the standard error of less than 1% for all professional and technical workers, this report focuses on the differing labor force sizes among the occupations and the long term (over-the-decade) trends. This analytic approach is considered to be the best when using data with relatively high sampling errors. Bureau of the Census Technical Paper 32, Standards for Discussion and Presentation of Errors in Data, states that "...estimates that are subject to large relative sampling errors frequently are small and the fact that the estimate is small is often sufficient information to be meaningful." Similarly, "The Analysis of Labor Statistics," available from the Branch of International Training, Bureau of Labor Statistics (mimeographed, revised 1979), notes that the analyst who observes consistent decline in successive months "may discern that there is an overall trend developing, even though the change from month to month is not significant (greater than the standard error)."

Table 4 **Standard errors and confidence intervals for artist labor force, employment, and unemployment 1980**

Occupations	Estimates for 1980	Standard error (+ or -)	68% confidence interval (range)	90% confidence interval (range)
All professional and technical workers	16,008,000	121,000	15,887,000-16,129,000	15,814,000-16,202,000
Employed	15,613,000	119,000	15,494,000-15,732,000	15,423,000-15,803,000
Unemployed	395,000	19,000	376,000-414,000	365,000-415,000
Unemployment rate	2.5%	.1%	2.4-2.6%	2.3-2.7%
Actors	23,000	5,000	18,000-28,000	15,000-31,000
Employed	15,000	4,000	11,000-19,000	9,000-21,000
Unemployed	8,000	3,000	5,000-11,000	3,000-13,000
Unemployment rate	35.4%	9.8%	25.6-45.2%	19.7-51.1%
Architects	92,000	9,000	83,000-101,000	78,000-106,000
Employed	90,000	9,000	81,000-99,000	76,000-104,000
Unemployed	2,000	1,000	1,000-3,000	0-4,000
Unemployment rate	1.7%	1.3%	.4-3.0%	0-3.8%
Authors	71,000	8,000	63,000-79,000	58,000-84,000
Employed	70,000	8,000	62,000-78,000	57,000-83,000
Unemployed	1,000	1,000	0-2,000	0-3,000
Unemployment rate	1.9%	1.6%	.3-3.5%	0-4.5%
Dancers	12,000	3,000	9,000-15,000	7,000-17,000
Employed	10,000	3,000	7,000-13,000	5,000-15,000
Unemployed	2,000	2,000	0-3,000	0-5,000
Unemployment rate	14.2%	9.8%	4.4-24.0%	0-29.9%
Designers	198,000	13,000	185,000-211,000	177,000-219,000
Employed	193,000	13,000	180,000-196,000	172,000-214,000
Unemployed	5,000	2,000	3,000-7,000	2,000-8,000
Unemployment rate	2.6%	1.3%	1.3-3.9%	.5-4.7%
Musicians/composers	153,000	12,000	141,000-165,000	134,000-172,000
Employed	143,000	11,000	132,000-154,000	125,000-161,000
Unemployed	10,000	3,000	7,000-13,000	5,000-15,000
Unemployment rate	6.2%	2.1%	4.1-8.3%	2.8-9.6%
Painters/sculptors	199,000	13,000	186,000-212,000	178,000-220,000
Employed	195,000	13,000	182,000-208,000	174,000-216,000
Unemployed	4,000	2,000	2,000-6,000	1,000-7,000
Unemployment rate	2.2%	1.2%	1.0-3.4%	.3-4.1%
Photographers	114,000	10,000	104,000-124,000	98,000-130,000
Employed	111,000	10,000	101,000-121,000	95,000-127,000
Unemployed	3,000	2,000	1,000-5,000	0-6,000
Unemployment rate	2.8%	1.5%	1.3-4.1%	.4-5.2%
Radio-TV announcers	19,000	4,000	15,000-23,000	13,000-25,000
Employed	19,000	4,000	15,000-23,000	13,000-25,000
Unemployed	*	*	*	*
Unemployment rate	*	*	*	*
Teachers(higher ed.)**	37,000	6,000	31,000-43,000	27,000-47,000
Employed	36,000	6,000	30,000-42,000	26,000-46,000
Unemployed	1,000	1,000	0-2,000	0-3,000
Unemployment rate	2.5%	2.5%	0-5.0%	0-6.5%
Other artists	102,000	10,000	92,000-112,000	86,000-118,000
Employed	96,000	9,000	87,000-105,000	82,000-110,000
Unemployed	6,000	2,000	4,000-8,000	3,000-9,000
Unemployment rate	6.0%	2.3%	3.7-8.3%	2.3-9.7%

* Unemployment rates and levels are not shown where unemployment is estimated to be below 500.

** Art, drama, and music.

CURRENT POPULATION SURVEY (CPS) AS A SOURCE OF ARTIST OCCUPATION DATA

The Current Population Survey is a 60,000-household general population survey that is conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. Its primary function is to provide the information necessary to compute national employment and unemployment statistics. Because comparatively specific questions about the respondent's occupation are included in the survey, it is possible to derive employment and unemployment statistics for each occupation coded by the Census Bureau. Information about the major occupation groupings is published monthly by the Bureau of Labor Statistics, while data on smaller, more closely defined, occupational categories are issued annually. The annual figures for 1971 through 1980 are used in this report.

The two major advantages CPS offers as a source of information about artists are:
1. National estimates for several characteristics of artist occupations which are directly comparable to the estimates for other occupations (because the survey, which uses a nationally representative sample, asks similar questions of all respondents).
2. Regular periodic collection of data which may be used for trend analysis.

The decennial census offers similar advantages in terms of comparability and regular intervals of collection but the intervals are full decades. On the other hand, the vastly larger size of the decennial census makes for greater data reliability. Clearly, both sources can and should be used, with the decennial censuses serving as benchmarks for the CPS.

A third source of data on artist occupations derived from a general population survey using the same questions to determine the occupation of the respondents as the CPS and decennial censuses is the 1976 Survey of Income and Education. This was a nationally representative sample survey of approximately 150,000 households. Because the sample size is larger than the CPS and, hence, offered statistics of greater reliability, Research Division Report #12 used this survey as a "mid-decade" benchmark and compared it with 1970 census results.

While these three sources have the advantage of providing comparable national occupational statistics, they share several important limitations insofar as artists are concerned. The survey questions identify only the respondent's "primary occupation" (one in which the most hours are worked) rather than all jobs held. Other studies indicate that many artists work simultaneously in other occupations; these individuals would not be counted as artists unless more time was devoted to the art occupation than to a second job. Another limitation derives from the fact that the occupational classification system used by the Census Bureau during the 1970s did not specifically provide for some artist occupations. Because no single occupational code explicitly included craft artists, for example, no estimate for this population can be extracted. (The 1980 census includes such artists under an expanded painters and sculptors code.)

Other data collection methods have been used by the Research Division to gain perspectives on the artist population which are not possible through the general population surveys. For example, in studying the American craft artist population, the Division contacted all known craft membership organizations to determine number of members and in what media they worked. (See Research Division Report #13, Craft Artist Membership Organizations 1978.) A representative sample of craft artists was selected and surveyed on the basis of resulting information. Concurrently, a sample of craft artists was selected from exhibitors at galleries and fairs and craft publication subscribers to learn about affiliation (or nonaffiliation) with craft membership organizations and to compare member and nonmember characteristics. These studies provide a basis for estimating size and characteristics of the craft artist population which would not be possible from general population surveys.

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